Fig.1.

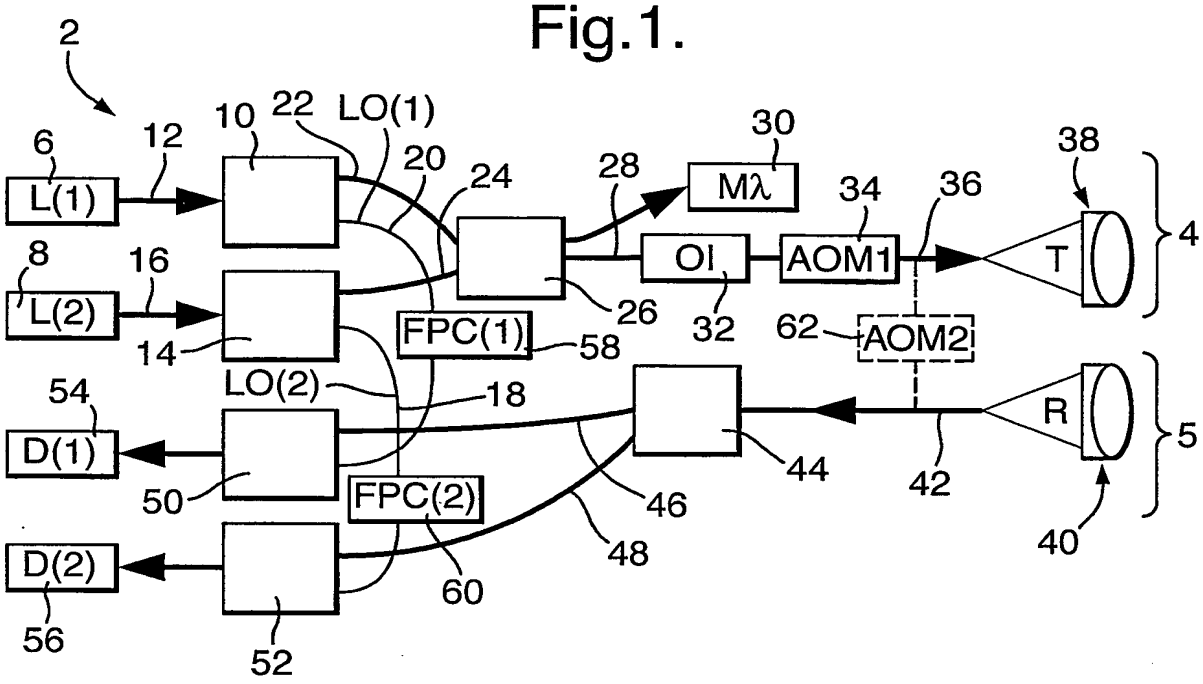
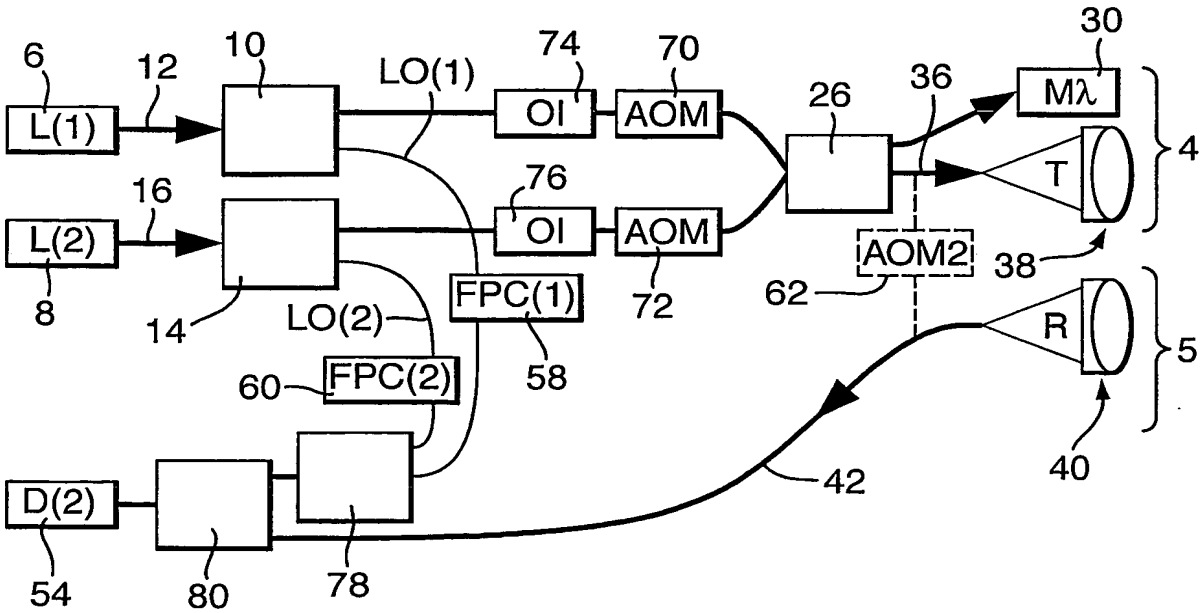

2
6
L(1)
12
10
22
LO(1)
20
24
28
30
Mλ
34
36
38
4
8
L(2)
16
14
FPC(1)
58
26
OI
32
AOM1
T
62
AOM2
LO(2)
18
54
D(1)
50
FPC(2)
46
44
42
R
5
40
48
D(2)
60
56
52

Fig.2.


6
L(1)
12
10
LO(1)
74
70
OI
AOM
26
36
30
Mλ
4
T
16
L(2)
8
14
LO(2)
76
OI
AOM
72
FPC(1)
58
60
FPC(2)
AOM2
62
38
R
5
40
42
D(2)
54
80
78

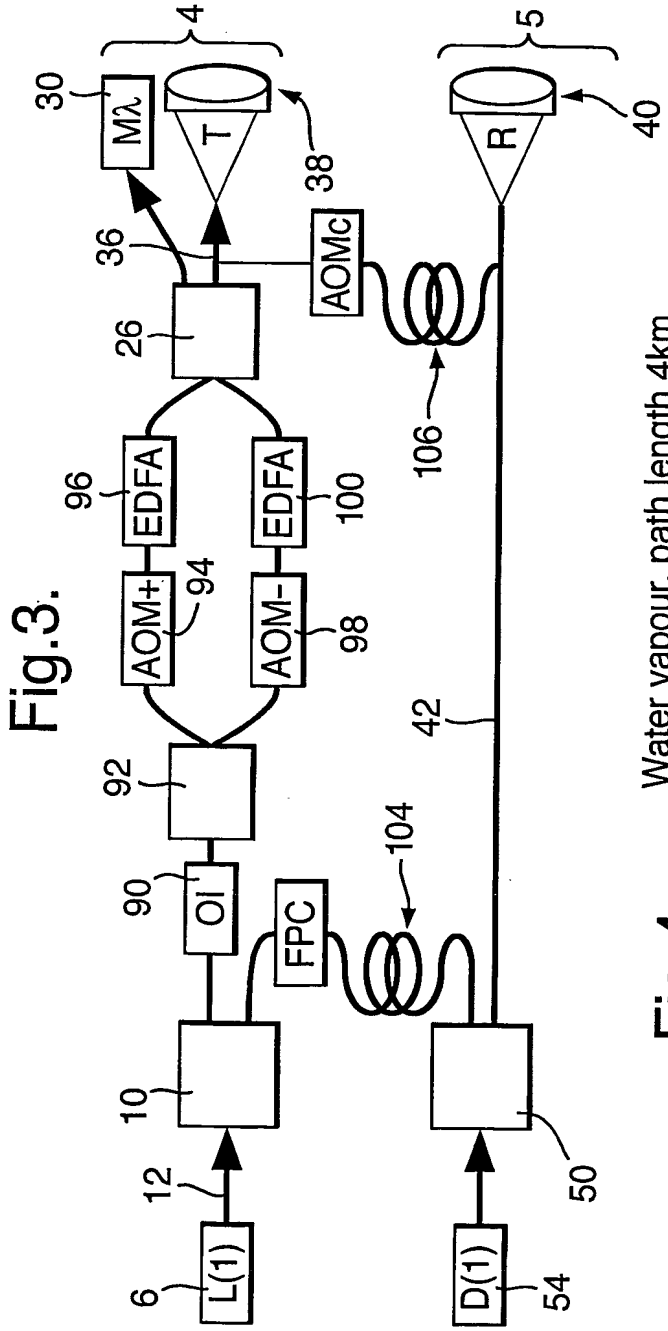

4
5
30
Mλ
T
38
R
40
36
AOMc
26
106
96
EDFA
EDFA
100
AOM+
94
AOM-
98
42
92
104
90
OI
FPC
10
50
12
6
L(1)
D(1)
54

Fig.3.

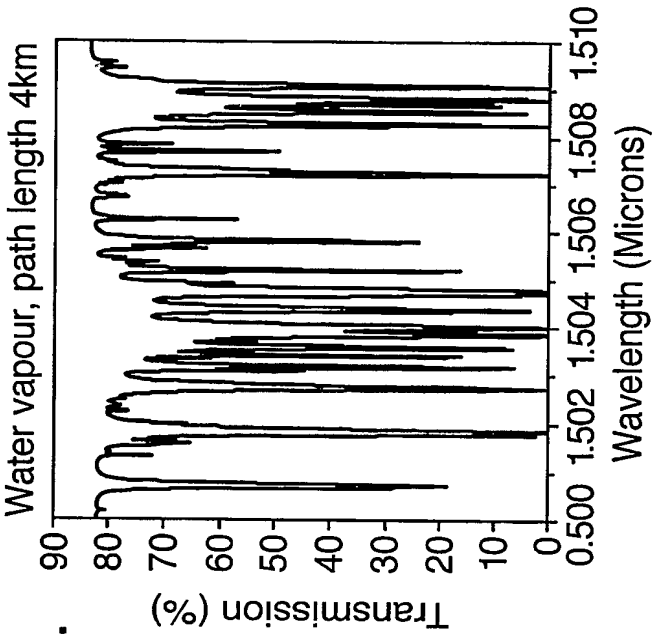

Water vapour, path length 4km
Transmission (%)
90
80
70
60
50
40
30
20
10
0
0.500
1.502
1.504
1.506
1.508
1.510
Wavelength (Microns)

Fig.4.

Fig.5a.

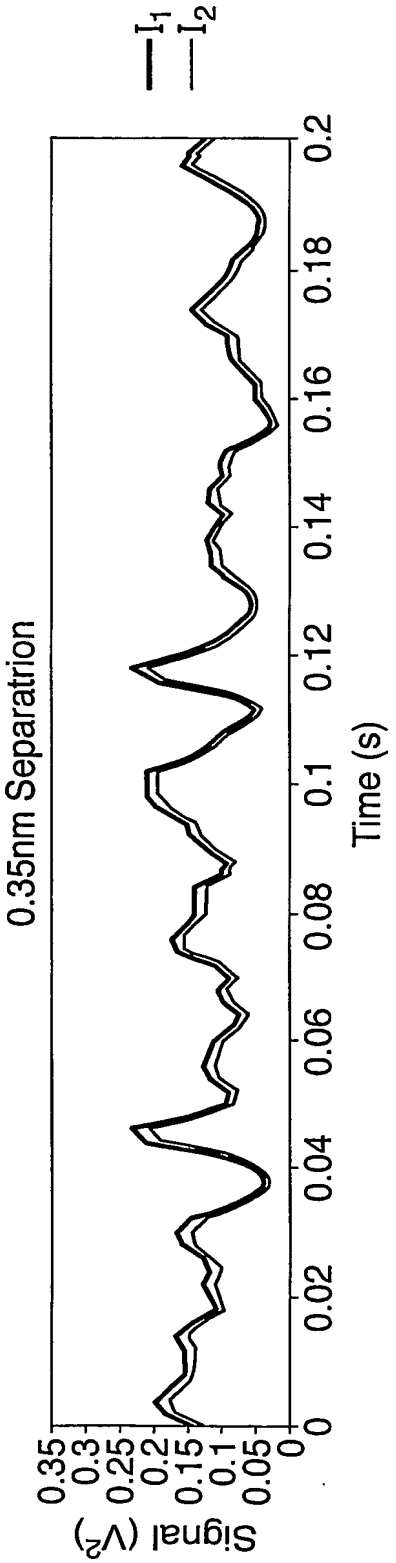

0.35nm Separatrion
I_1
I_2
Signal (V^2)
Time (s)
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
0.2

Fig.5b.

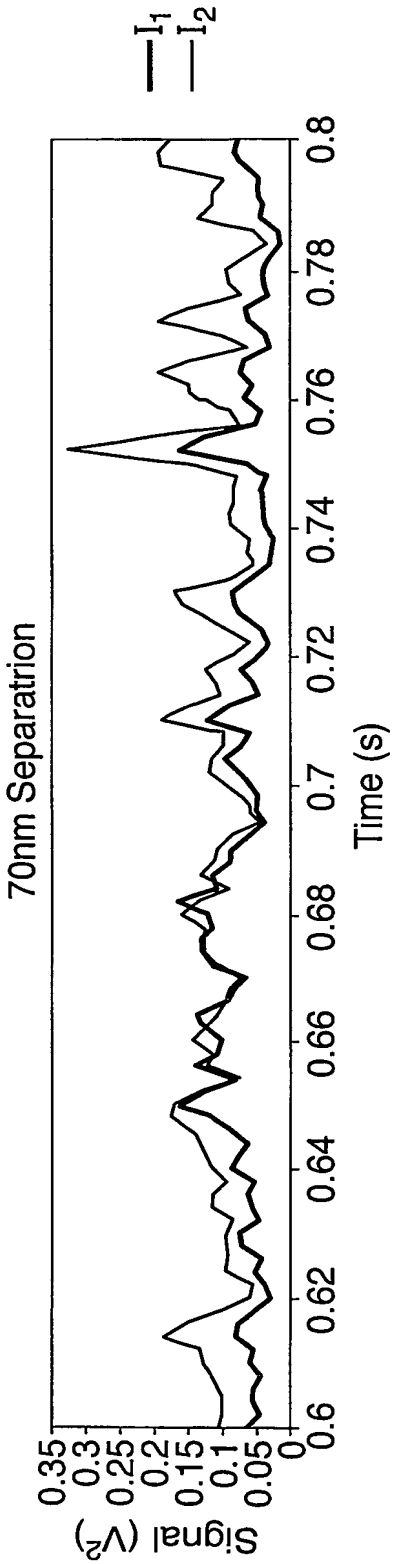

70nm Separatrion
I_1
I_2
Signal (V^2)
Time (s)
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.6
0.62
0.64
0.66
0.68
0.7
0.72
0.74
0.76
0.78
0.8

Fig.6.

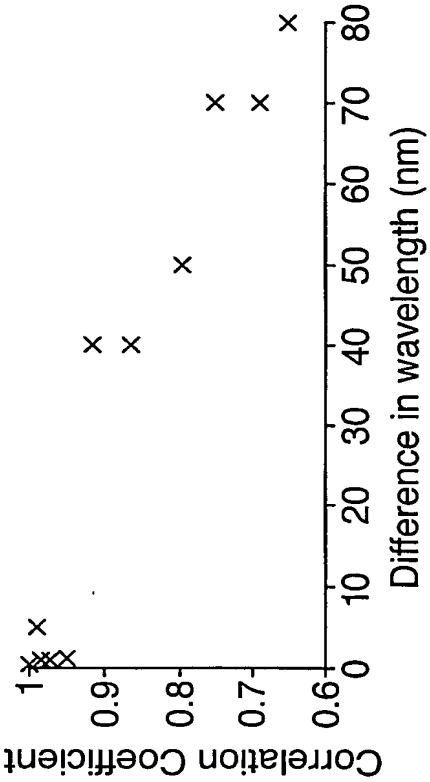

Correlation Coefficient
1
0.9
0.8
0.7
0.6
0
10
20
30
40
50
60
70
80
Difference in wavelength (nm)

Fig.7a.

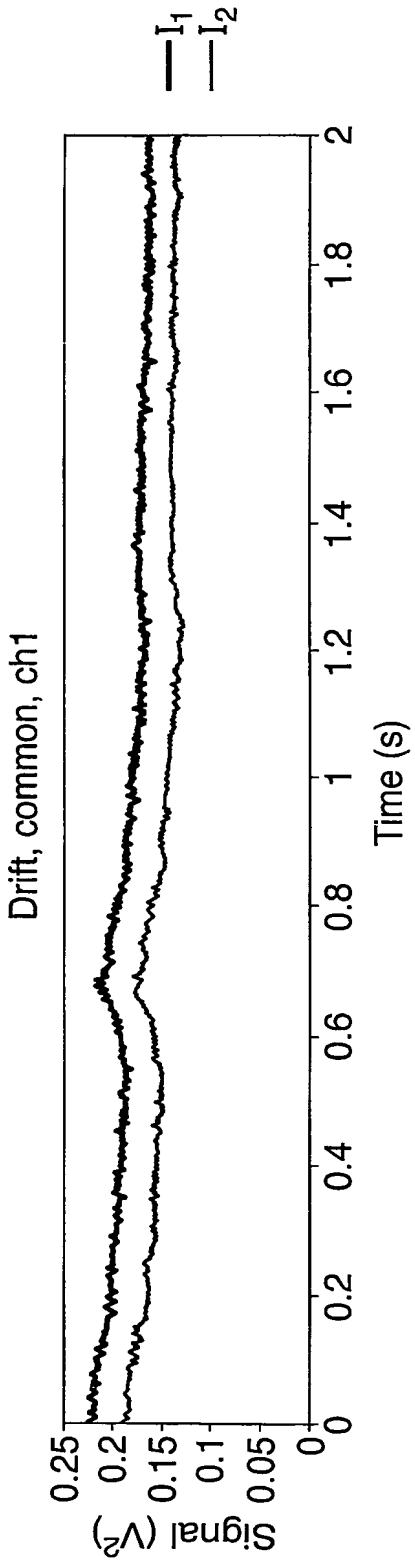

Drift, common, ch1
I_1
I_2
Signal (V^2)
0.25
0.2
0.15
0.1
0.05
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
Time (s)

Fig.7b.

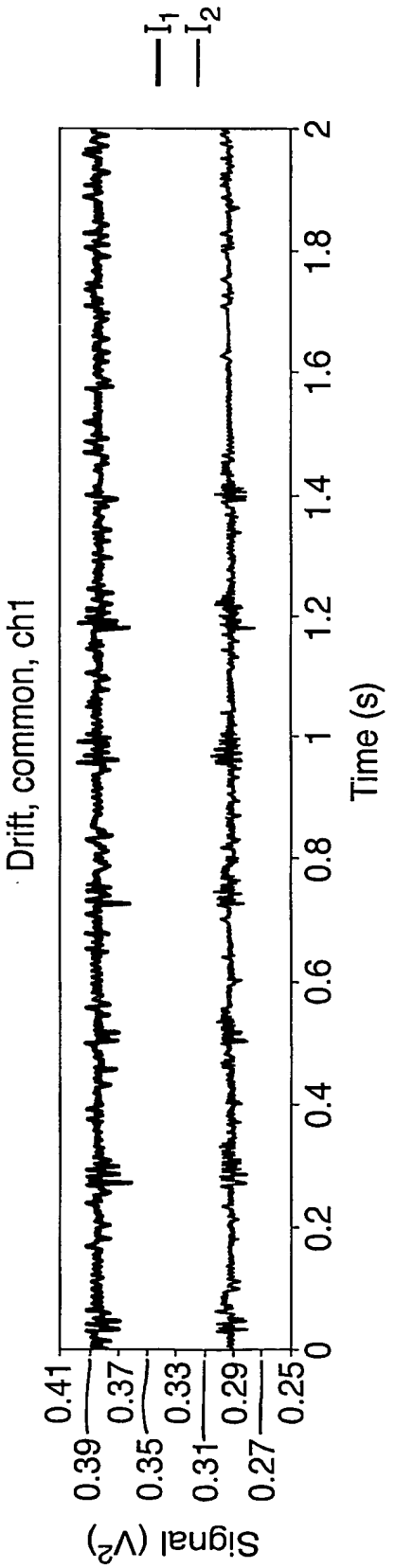
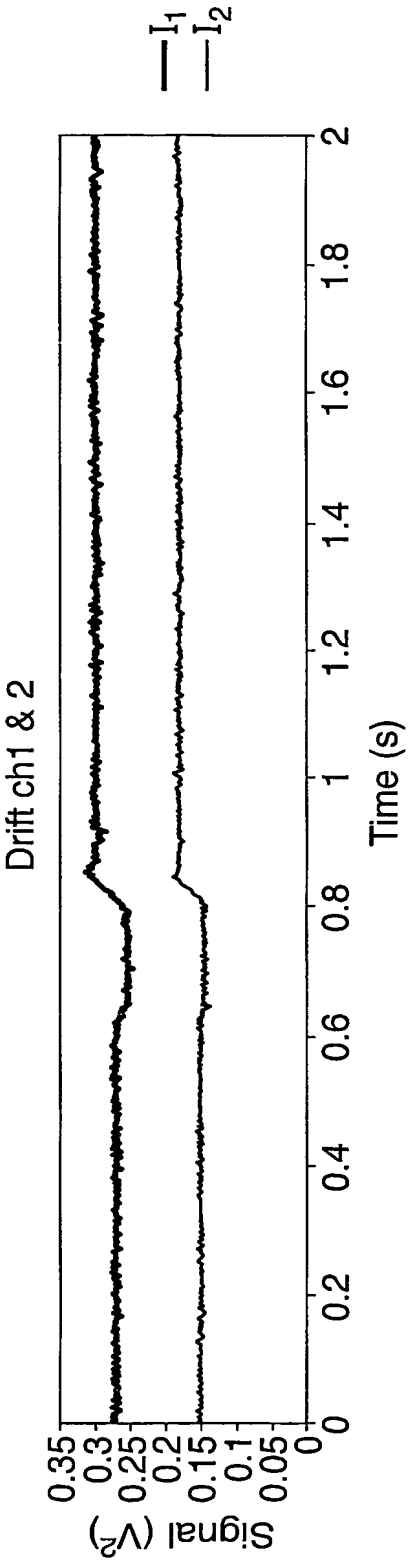

Drift, common, ch1
I1
I2
Signal (V²)
0.41
0.39
0.37
0.35
0.33
0.31
0.29
0.27
0.25
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
Time (s)

Fig.7c.


Drift ch1 & 2
I1
I2
Signal (V²)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
Time (s)